ABSTRACT OF THE DISCLOSURE

A sealing mechanism for a gas chromatograph machine includes a weldment attachment mountable at the weldment assembly of the machine. The attachment has a passage therethrough for gas communicated to the weldment assembly. An actuator imparts a direct force on the weldment attachment to move it linearly towards an injection port of the machine and to sealingly clamp the weldment attachment onto the port. Torsional forces are not applied on the weldment attachment by the actuator.